MAR 1 8 2005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Scott D. McMillan et al.

Confirmation No.: 3159

Serial No.:

10/735,842

Examiner: Karen Masih

Filing Date:

December 11, 2003

Group Art: 2837

For:

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ELECTRIC MOTOR WITH SPEED CONTROL

Docket No.: H0005881-9952(1161.1189101)

AMENDMENT

Mail Stop Amendment Assistant Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the United States Patent and Trademark Office on the date shown below.

This Amendment is being filed in response to the Official Action of the Examiner mailed December 22, 2004, setting a three-month shortened statutory period for response ending March 22, 2005.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 4 of this paper.

Remarks/Argument begin on page 12 of this paper.

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PAGE 2/19 ° RCVD AT 3/18/2005 11:51:15 AM (Eastern Standard Time) ° SVR.USPTO-EFXRF-1/7 ° DNIS-2/26006 ° CSID-61/23593249 ; DURATION

G2 FC:1202

109.00 DA

Application No. 10/735,842 Amendment dated March 18, 2005 Reply to Office Action dated December 22, 2004

(New) A method for controlling the speed of an electric motor, the 33. method comprising:

supplying current to the motor to drive the motor at a first speed, the supply current being driven at a frequency that corresponds to the first speed with current peaks and current valleys;

suspending the supply of current such that at least one current peak and/or current valley is skipped;

while the supply of current is suspended, allowing the current to decay to zero or substantially zero and then obtaining a measure of the back emf generated by the motor, and

using the measure of the back emf as feedback to control the speed of the motor.

As can be seen, claim 33 recites the step of suspending the supply of current such that at least one current peak and/or current valley is skipped. Nothing in Pedrazzini or Plunkett suggests this step. Claim 33 also recites, while the supply of current is suspended, allowing the current to decay to zero or substantially zero and then obtaining a measure of the back emf generated by the motor. Again, Nothing in Pedrazzini or Plunkett suggests this step. For these and other reasons, new claim 33 is also believed to be clearly patentable over the cited prior art.

In view of the foregoing, Applicant believes that all pending claims 1-33 are in condition for allowance. Reexamination and reconsideration are respectfully requested. If the examiner believes it would be beneficial to discuss the application or its examination in any way, please call the undersigned at (612) 359-9348.

Respectful

Dated: March 18, 2005

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Fax Transmission

TO:

Commissioner for Patents

FROM:

Brian N. Tufte

Attn: Examiner Karen Masih

P.O. Box 1450

Alexandria, VA 22313-1450

OUR REF: H0005881-9952(1161.1189101)

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Title of Document Transmitted: Amendment in response to QA dated 12-22-04

Applicant:

Scott D. McMillan

Serial No.:

10/735,842

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December 11, 2003

Group Art Unit: 2837

Our Ref. No.:

H0005881-9952(1161.1189101)

Confirmation No.3159

Please charge Deposit Account No. 50-0413 in the amount of \$ 500.00 for 2 additional claims which are independent claims. Please obage any additional fees or credit overpayment to Deposit Account No. 50-0413. Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these payers, if appropriate.

Name: Brian N. Tu . Reg. No.: 38,638

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Name: Lynn Thompson

Date

March 18, 2005

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control n PATENT APPLICATION FEE DETERMINATION RECORD Application or Docket Number Substitute for Form PTO-875 735842 CLAIMS AS FILED - PART I OTHER THAN SMALL ENTITY OR (Column 1) SMALL ENTIT (Column 2) FOR NUMBER FILED NUMBER EXTRA RATE FEE RATE Fŧ **BASIC FEE** (37 CFR 1.16(a)) OR **TOTAL CLAIMS** (37 CFR 1.16(c)) minus 20 = X \$_ OR X \$ INDEPENDENT CLAIMS (37 CFR 1.16(b)) minus 3 = OR MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(d)) + 5 OR + \$ TOTAL * If the difference in column 1 is less than zero, enter "0" in column 2. OR TOTAL CLAIMS AS AMENDED - PART II OTHER THAN OR (Column 1) (Column 2) (Column 3) **SMALL ENTITY** SMALL ENTITY CLAIMS HIGHEST **PRESENT** REMAINING NUMBER RATE ADDI-RATE ADI 3 · 18 · 05 **AMENDMENT AFTER EXTRA PREVIOUSLY** TIONAL **101T AMENDMENT PAID FOR** FEE FE Total (37 CFR 1.16(c)) Minus x \$ 50 = OR 100 Independent Minus (37 CFR 1.16(b)) x \$ 200 = 400 OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) OR + 5 TOTAL TOTAL OR ADD'L FEE ADD'L FEE 500 (Column 1) (Column 2) (Column 3) **CLAIMS** HIGHEST REMAINING **PRESENT** NUMBER RATE ADDI-RATE ADE **AMENDMENT** AFTER **PREVIOUSLY EXTRA** TIONAL TION **AMENDMENT** PAID FOR FEE FEI Total Minus (37 CFR 1 16(c)) OR Independent Minus (37 CFR 1 16(b)) X S OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) OR TOTAL TOTAL ADD'L FEE OR ADD'L FEE (Column 1) (Column 2) (Column 3)

	(Column 1)		(Column 2)	(Column 3)		
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
Total (37 CFR 1 16(c))	•	Minus	••	B .		
Independent (37 CFR 1 16(b))		Minus .	•••	: .		
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1 16(d))						

RATE	ADDI- TIONAL FEE		RATE	ADD TION FEE
x \$=		OR	x \$=	
x \$=		OR	x \$ =	
+ \$=		OR	+ \$=	
TOTAL ADD'L FEE		ÖR	TOTAL ADD'L FEE	

If the entry in column 1 is less than the entry in column 2, write "0" in column 3

[&]quot;If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20"

[&]quot;If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3"

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.